STUDY ON DISTRIBUTION OF MALASSEZIA SPECIES IN PATIENTS WITH PITYRIASIS VERSICOLOR IN A TERTIARY CARE HOSPITAL .

INTRODUCTION:

Pityriasis versicolor also known as tinea versicolor, is a superficial chronically recurring fungal infection of stratum corneum, which is caused by a group of lipophilic yeast called as Malassezia. The lesions are characterized by scaly, hypo or hyperpigmented irregular macules, most often on upper part of trunk, neck, face & upper part of arms.

AIMS & OBJECTIVES:

1. To demonstrate the fungi in skin scrapings using 10% KOH with parker blue ink .
2. To isolate the fungi using SDA with cycloheximide and modified Dixon's agar.
3. To do speciation among the isolates using catalase test, esculin hydrolysis test & Tween assimilation test.
4. To perform the anti-fungal susceptibility using Micro-broth dilution method as per CLSI guidelines.
5. To study the clinical outcome in relation to clinical presentation, environmental and various host factors associated with this disease.

MATERIALS & METHODS:

This Descriptive cross-sectional study is proposed to carried out for one year period with the estimated sample size of 102 patients of pityriasis versicolor attending dermatology OPD at Coimbatore medical college hospital.

Skin scrapings were treated with 10%KOH & parker ink stain . which shows typical "spaghetti & meat balls" appearance, then they are subjected to

Sabouraud's dextrose agar with olive oil overlay or modified Dixon's agar which contains glycerol mono-oleate & tweens to support the growth of this fungus.Speciation of fungi may be carried out using catalase test, Esculin hydrolysis, assimilation of Tween 20,40,60,& 80.Anti-fungal susceptibility was done with the following drugs, Ketoconazole, Fluconazole & Itraconazole & results were recorded.

INCLUSION CRITERIA:

All patients clinically diagnosed as Pityriasis versicolor are included in the study.

RESULTS:

Total cases taken for study was 102, which included both male & female patients. The disease was seen more common among male patients in the age group of 15-25yrs & it is statistically significant.The commonest complaint among patients was hypopigmentation (92.8%) & hyperpigmentation (7%). The sites mostly affected were chest(39.2%),back(33.3%), followed by neck, shoulders and abdomen. Risk factors like excessive sweating, Diabetes mellitus, prolonged use of steroid intake are found to be associated with PV.

M.globosa (60%) is the most common species isolated, followed by M.sympodialis (28%) and M.furfur (12%). Other Malassezia species like M.obtusa, M.restricta, M.pachydermatis, M.slooffiae ,etc., were not isolated. Antifungal Susceptibility of Malassezia species by Broth microdilution method by using Modified RPMI-1640 medium with lipid supplements was performed for 102 isolates using Ketoconazole, Fluconazole and Itraconazole.Low MIC ranges were noted for Ketoconazole & Itraconazole to most of Malassezia isolates, indicating a high sensitivity of these drugs to Malassezia species.

CONCLUSION:

Malassezia yeasts, are a part of normal skin flora which are of low virulence that may cause mild, recurrent superficial fungal infection & serious systemic infection in susceptible host. The identification of this lipophilic yeast, to species level is important to determine which species is implicated in skin disease and variation in distribution of different Malassezia species with relation to demographic area ,clinical presentation, site & type of lesion. Malassezia species, standard testing conditions and clinical breakpoints have not yet been established , so it is unclear whether invitro antifungal activity is predictive of clinical outcome of the disease

KEYWORDS: malassezia,, 10% koh mount, modified dixon agar, anti-fungal susceptibility test.